From: Berner, Ted [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F1949C9653024D3CB4AA4C2BD69C4FDE-BERNER, TED]

Sent: 8/17/2016 8:15:32 PM

To: Flowers, Lynn [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=1a4411c874d041b9a8badfc32b91bd70-Flowers, Lynn]; Ross, Mary

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=98359cd1f66f46ec91d327e99a3c6909-Ross, Mary]; Perovich, Gina

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=6e3c19d7f4db41bfa2477aa27ad83945-Perovich, Gina]; Vandenberg, John

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=dcae2b98a04540fb8d099f9d4dead690-Vandenberg, John]; Cogliano, Vincent

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=51f2736376ac4d32bad2fe7cfef2886b-Cogliano, Vincent]; D'Amico, Louis

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=78a91f83c4414910be286efe02004dbc-D'Amico, Louis J.]; Jones, Samantha

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=eac77fe3b20c4667b8c534c90c15a830-Jones, Samantha]; Slimak, Michael

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=197d6551afaf4d90b087c4d5bf62b53c-Slimak, Mike]

CC: Fegley, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=790aa5a70d9045bda631d9d6e548d704-Fegley, Robert]; Cantilli, Robert

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=f5e93c4af5ac49abbfef1c1031b43d31-Cantilli, Robert]

Subject: RE: OW wants to know who to talk to----CrVI in the news

Dear All,

Fyi, here's a link to the Data Summary (April 2016) for UCMR 3: https://www.epa.gov/sites/production/files/2016-05/documents/ucmr3-data-summary-april-2016.pdf

Only presents summary information on occurrence (i.e., samples above and below the detection limit), not what the levels of contaminants were.

-Ted

From: Flowers, Lynn

Sent: Wednesday, August 17, 2016 3:44 PM

To: Ross, Mary <Ross.Mary@epa.gov>; Perovich, Gina <Perovich.Gina@epa.gov>; Vandenberg, John

<Vandenberg.John@epa.gov>; Cogliano, Vincent <cogliano.vincent@epa.gov>; D'Amico, Louis

<DAmico.Louis@epa.gov>; Jones, Samantha <Jones.Samantha@epa.gov>; Berner, Ted <Berner.Ted@epa.gov>; Slimak,

Michael <Slimak.Michael@epa.gov>

Cc: Fegley, Robert <Fegley.Robert@epa.gov>; Cantilli, Robert <Cantilli.Robert@epa.gov>

Subject: RE: OW wants to know who to talk to----CrVI in the news

Deliberative Process / Ex. 5

Thanks

Lynn Flowers, PhD, DABT Office of Science Policy US EPA Washington, DC 202-564-6293 From: Ross, Mary

Sent: Wednesday, August 17, 2016 3:41 PM

To: Flowers, Lynn <Flowers.Lynn@epa.gov>; Perovich, Gina <Perovich.Gina@epa.gov>; Vandenberg, John

<Vandenberg.John@epa.gov; Cogliano, Vincent cogliano.vincent@epa.gov; D'Amico, Louis

Michael <Slimak.Michael@epa.gov>

Cc: Fegley, Robert < Fegley.Robert@epa.gov>; Cantilli, Robert < Cantilli.Robert@epa.gov>

Subject: RE: OW wants to know who to talk to----CrVI in the news

Hi, I don't think I've seen anyone else respond yet. We have a position open for an ACD for Scientific Support that's closing today, and in the future that person will ride herd on this type of question. Meanwhile, Ted Berner has been handling calls for help from the program offices, and sounds like Eric is already familiar with Ted.

From: Flowers, Lynn

Sent: Wednesday, August 17, 2016 12:58 PM

To: Perovich, Gina < Perovich. Gina@epa.gov >; Ross, Mary < Ross. Mary@epa.gov >; Vandenberg, John

<a href="mail

<DAmico.Louis@epa.gov>; Jones, Samantha <Jones.Samantha@epa.gov>; Berner, Ted <Berner.Ted@epa.gov>; Slimak,

Michael <Slimak.Michael@epa.gov>

Cc: Fegley, Robert <Fegley.Robert@epa.gov>; Cantilli, Robert <Cantilli.Robert@epa.gov>

Subject: OW wants to know who to talk to----CrVI in the news

Hi all: I am sending this note to a broad group so that you know what is going on – and Eric Burneson just called since he would have normally contacted me or Ted...and asked for a name from NCEA to work with on moving forward on CrVI issues.

The UCMR 3 is now done – and as you recall, finalizing the UCMR and the IRIS assessment was supposed to happen in the same timeframe.

The email below and attached letter are the latest issues that I know of. As a reminder, don't forget that we co-wrote a public statement for OW (see weblink below) regarding the timing of the IRIS assessment and further regulation.

Let me know who he should be talking to and I'll relay that. OSP folks are cced so they are in the loop and can help if needed. Lot's going on again with this chemical.

Lynn

Lynn Flowers, PhD, DABT Office of Science Policy US EPA Washington, DC 202-564-6293

From: Flowers, Lynn

Sent: Wednesday, August 17, 2016 10:07 AM

To: Hauchman, Fred < hauchman.fred@epa.gov>; Bahadori, Tina < Bahadori.Tina@epa.gov>; Ross, Mary

<<u>Ross.Mary@epa.gov</u>>; Vandenberg, John <<u>vandenberg.john@epa.gov</u>>; Thomas, Russell <<u>Thomas.Russell@epa.gov</u>>;

Slimak, Michael <Slimak.Michael@epa.gov>; Cogliano, Vincent <cogliano.vincent@epa.gov>; Kavlock, Robert

<<u>Kaylock.Robert@epa.gov</u>>; Burke, Thomas <<u>Burke.Thomas@epa.gov</u>>; Gwinn, Maureen <<u>gwinn.maureen@epa.gov</u>>;

Deener, Kathleen < Deener. Kathleen@epa.gov>

Subject: CrVI in the news

I pulled together recent chromium VI issues in the news - another example, as we discussed, of an emerging public health issue that could have been handled differently with respect to the need for a health assessment

• Letter to Gina McCarthy (Aug 16, 2016) - attached

http://insideepa.com/daily-news/environmentalists-urge-epa-accelerate-cr6-drinking-water-standard (pasted below)

• Resignation of North Carolina state epidemiologist over issues related to toxicity values for CrVI in coal ash (Aug 10, 2016)

https://www.documentcloud.org/documents/3010359-DaviesResignationPDF10Aug2016.html http://www.wral.com/agency-leaders-lob-more-criticism-on-state-scientist/15915859/

• North Carolina public statement from DHHS and DEQ denouncing state toxicologist for issues related to CrVI and vanadium (Aug 9, 2016)

http://deq.nc.gov/press-release/despite-mischaracterizations-north-carolina-protecting-drinking-water

• TCEQ released a draft assessment for public comment that recommends a threshold value for CrVI carcinogenicity (RfD) (Jun 2016)

http://insideepa.com/sites/insideepa.com/files/documents/jul2016/epa2016 1440.pdf

• EPA OW's public statements regarding CrVI and next steps, including the possibility of regulation https://www.epa.gov/dwstandardsregulations/chromium-drinking-water

Environmentalists Urge EPA To Accelerate Cr6 Drinking Water Standard August 16, 2016

Environmentalists are urging EPA Administrator Gina McCarthy to set a drinking water standard for hexavalent chromium (Cr6) as soon as possible, expressing concerns about the agency's failure to finalize, after eight years of work, a risk assessment of the metal that would allow EPA to move forward with a new standard. "We write with deep concern about this continued delay," Environmental Working Group (EWG) President Ken Cook and consumer advocate Erin Brockovich write in an Aug. 16 letter to McCarthy. "It is clear that the delay is sowing confusion among state and local regulators, utilities and the public about how much hexavalent chromium is safe in drinking water. This confusion is resulting [in] many Americans' exposure to unregulated levels of [Cr6]..."

The advocates' letter to McCarthy follows the resignation of North Carolina's state epidemiologist, Megan Davies, over disagreements with other state officials on how to limit residents' exposure to Cr6 in drinking water wells near Duke Energy's coal ash pits. EWG and Brockovich argue in their letter that EPA's inaction on a federal Cr6 standard left Davies without an enforceable basis for her concerns about the levels of Cr6 in drinking water wells that did not exceed the federal standard but which advocates call outdated.

EWG and other advocates have long argued that the existing federal chromium standard is inadequate, in part because they say it inappropriately combines multiple forms of chromium. The 100 micrograms per liter (ug/L) of water standard, set in 1991, is for total chromium, a mixture of Cr6 and trivalent chromium (Cr3). While Cr6 is a carcinogen, Cr3 is an essential nutrient.

EWG argues that a drinking water standard, or maximum contaminant level (MCL), "for these two kinds of chromium combined conflates the individual risk of each chemical and allows for legally permissible [Cr6] levels that do not adequately protect public health. EPA should instead set an MCL specifically for [Cr6] to more accurately reflect the actual level of risk posed by [Cr6] alone."

EPA Assessment

EPA released a draft Integrated Risk Information System (IRIS) assessment of oral Cr6 risks in 2010, but that draft was shelved after a controversial 2011 peer review panel, where several members recommended that the agency delay the assessment until industry consultants completed a series of studies investigating the biological mechanism for how Cr6 causes cancer after ingestion. Environmentalists later questioned some of the reviewers' industry ties.

The agency in 2014 <u>re-started the IRIS</u> assessment, releasing preliminary scoping documents later that year. A public draft has yet to be released, but may be planned for 2017, an industry source says.

The consultants' subsequent publications have questioned a 2008 study of rodents by the National Toxicology Program, which first raised concern over oral exposures to Cr6, suggesting that the studies are not applicable to Americans' risks given their much lower exposure levels in drinking water. Using that information, the Texas Commission on Environmental Quality last month <u>released a draft Cr6 assessment</u> indicating that the existing federal standard is health protective.

EWG, however, cites California's decision to set its own Cr6 standard of 10 ug/L -- a number that EWG considers insufficiently protective, even though it is significantly stricter than the federal standard. North Carolina's Cr6 standard is weaker, though it falls within the federal standard, EWG writes.

"While questions remain about what level of exposure to [Cr6] is safe, there is scientific consensus that the chemical is hazardous at extremely low concentrations," the letter states. "States like North Carolina, where industrial byproducts like coal ash increase the risk of [Cr6] contamination, need a federal mandate to set strong, health-protective standards. . ."

Noting it has been eight years since EPA began assessing Cr6 risks, the group urges McCarthy to set a new MCL "as soon as possible." -- Maria Hegstad (mhegstad@iwpnews.com)

Lynn Flowers, PhD, DABT Office of Science Policy US EPA Washington, DC 202-564-6293